meap

Michigan Educational Assessment Program

Grade 4
Mathematics

Constructed Response Scoring Guides
Fall 1995

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These scoring rubrics are provided to help evaluate and score the constructed response items on the 1995 MEAP Mathematics Test, Grade 4. For each item a solution is given as well as actual student responses with annotations explaining the score point given.

General Recommendations and Guidelines

- Studying the sample student responses and annotations will help you understand the essence of what is expected at each score point for a particular question. Keep in mind that these sample student responses represent only a few of the many possible responses for a given score point.

- To ensure the accuracy and consistency of your scoring, keep the following in mind:

  1. Continually review the scoring rubric, the annotated score guide and student samples, especially when you are in doubt regarding a particular student response.

  2. Do not judge one student's paper by another. Instead, apply the same objective standards to each paper by evaluating the response in terms of the scoring rubric and guides.

  3. It is advisable to devise a method to conceal student names when scoring the papers.

  4. Review papers you scored earlier in the process to make sure you are using the same standards.

  5. Do not think that length is synonymous with quality. A long response may be redundant, wordy or vague.

  6. Do not allow the issues of handwriting, spelling, or grammar to affect your ability to score.

GRADE 4 - KEISHA
SCORING RUBRIC

3 POINTS Correct drawing; correct explanation

* * * *

2 POINTS Correct drawing explanation attempted but incorrect (A sincere attempt with a logical/correct approach to an explanation must be made.)
OR Incorrect drawing; correct explanation
OR Correct drawing; explanation omitted
OR Drawing omitted; correct explanation

* * * *

1 POINT Incorrect drawing; incorrect explanation

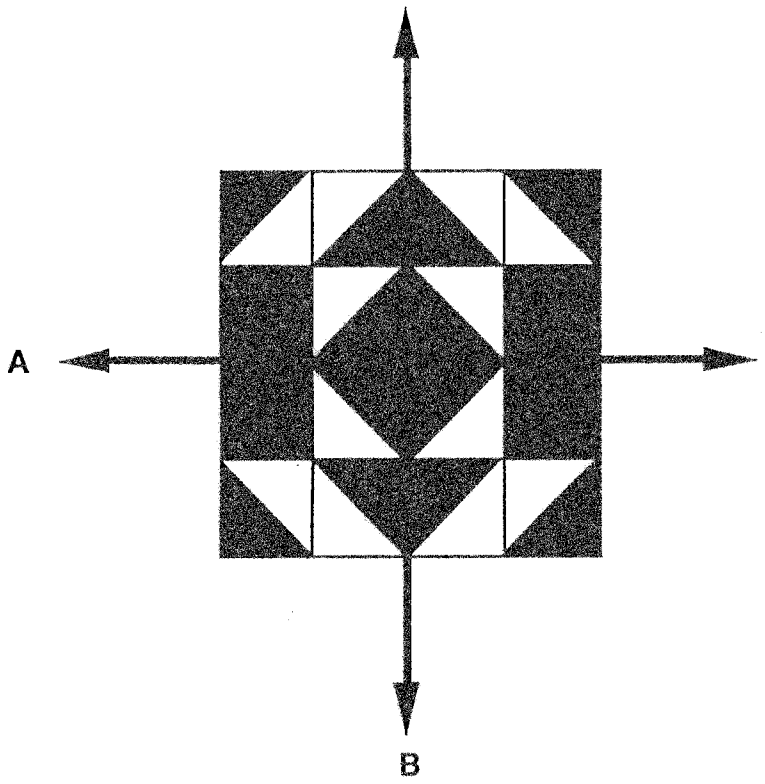
* * * *

0 POINTS Incorrect drawing; explanation omitted

OR Drawing omitted; incorrect explanation

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Keisha started designing the quilt pictured below. She wants the quilt to be symmetrical both horizontally (line A) and vertically (line B). Shade in the squares so that lines A and B are lines of symmetry for the quilt.



Explain how you could prove to Keisha that your quilt shading has symmetry both horizontally and vertically.

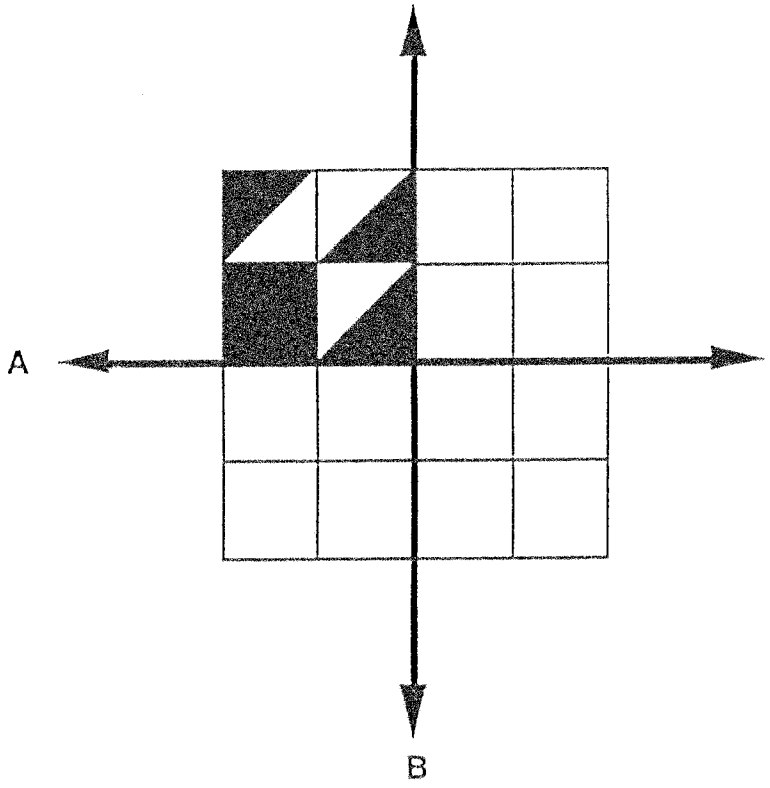
Exemplar: *If you fold the quilt on either a horizontal or vertical line that passes through the center of the quilt, the shaded parts will match and the unshaded parts will match.*

OR

Use a mirror to show that one side is the mirror image of the other side.

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Keisha started designing the quilt pictured below. She wants the quilt to be symmetrical both horizontally (line A) and vertically (line B). Shade in the squares so that lines A and B are lines of symmetry for the quilt.



Explain how you could prove to Keisha that your quilt shading has symmetry both horizontally and vertically.

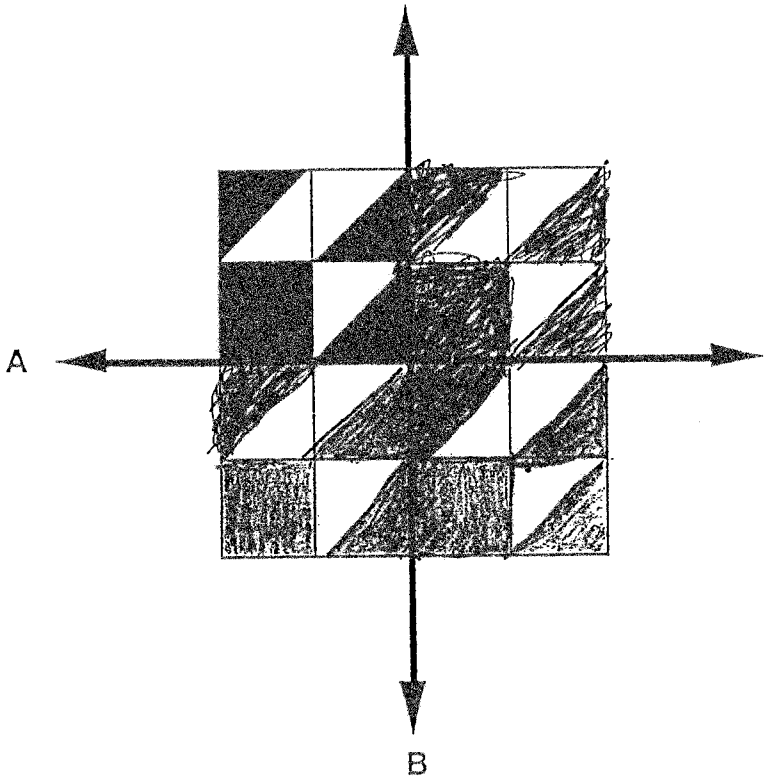
hafe of 3 is hafe shaded and | is not

0 POINTS

DRAWING; INCORRECT EXPLANATION

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Keisha started designing the quilt pictured below. She wants the quilt to be symmetrical both horizontally (line A) and vertically (line B). Shade in the squares so that lines A and B are lines of symmetry for the quilt.



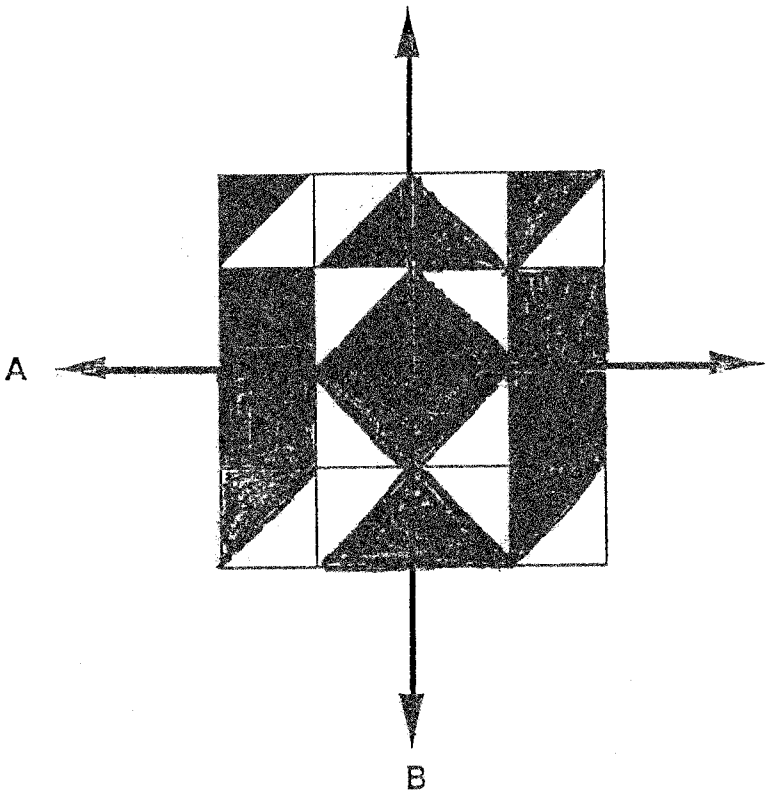
Explain how you could prove to Keisha that your quilt shading has symmetry both horizontally and vertically.

0 POINTS

INCORRECT DRAWING; EXPLANATION OMITTED

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Keisha started designing the quilt pictured below. She wants the quilt to be symmetrical both horizontally (line A) and vertically (line B). Shade in the squares so that lines A and B are lines of symmetry for the quilt.



Explain how you could prove to Keisha that your quilt shading has symmetry both horizontally and vertically.

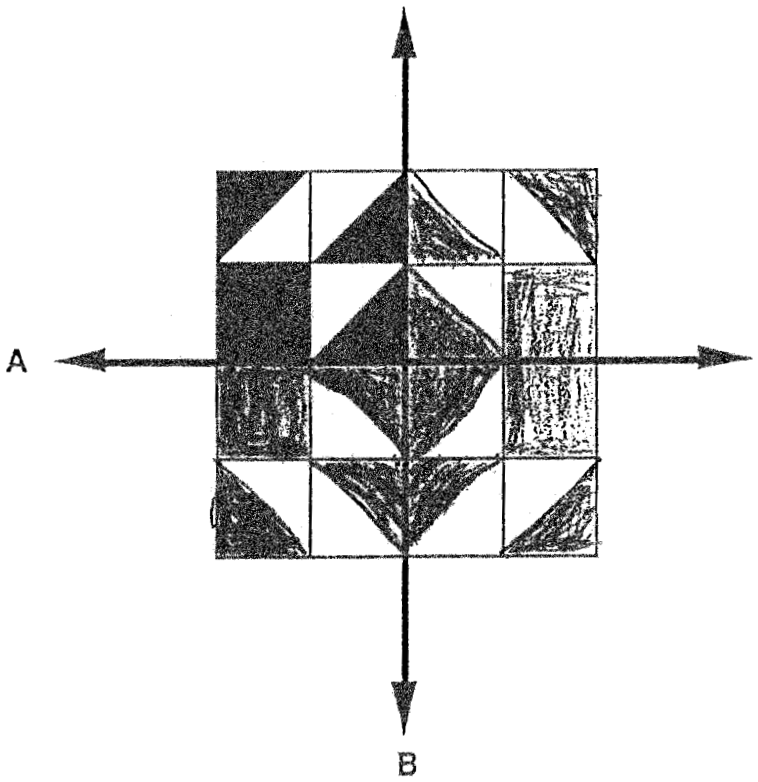
I folded it Horizontaley and, Verticaley and it was right

1 POINT

INCORRECT DRAWING; INCORRECT EXPLANATION

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Keisha started designing the quilt pictured below. She wants the quilt to be symmetrical both horizontally (line A) and vertically (line B). Shade in the squares so that lines A and B are lines of symmetry for the quilt.



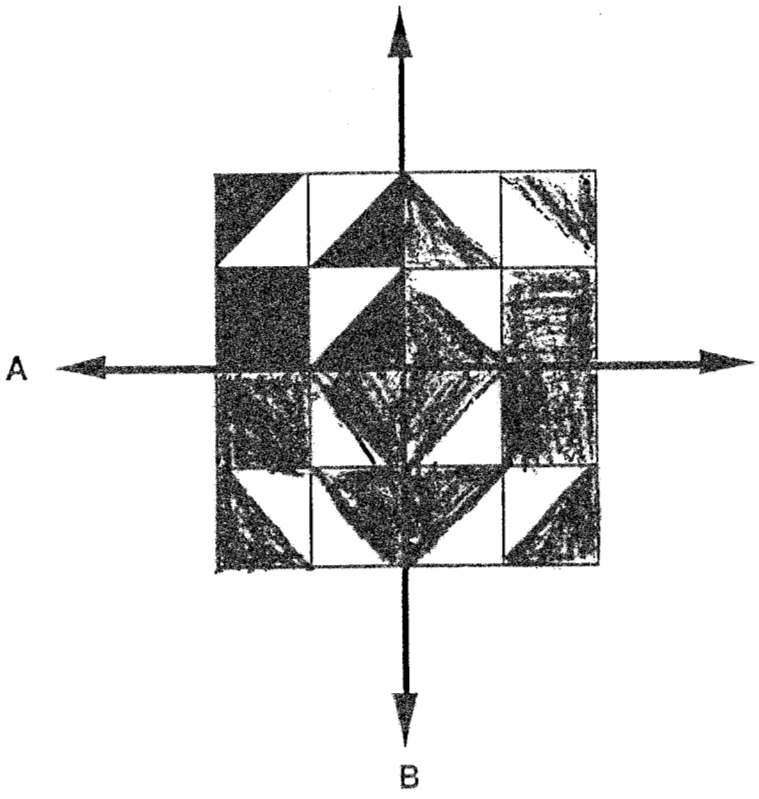
Explain how you could prove to Keisha that your quilt shading has symmetry both horizontally and vertically.

2 POINTS

CORRECT DRAWING; EXPLANATION OMITTED

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Keisha started designing the quilt pictured below. She wants the quilt to be symmetrical both horizontally (line A) and vertically (line B). Shade in the squares so that lines A and B are lines of symmetry for the quilt.



Explain how you could prove to Keisha that your quilt shading has symmetry both horizontally and vertically.

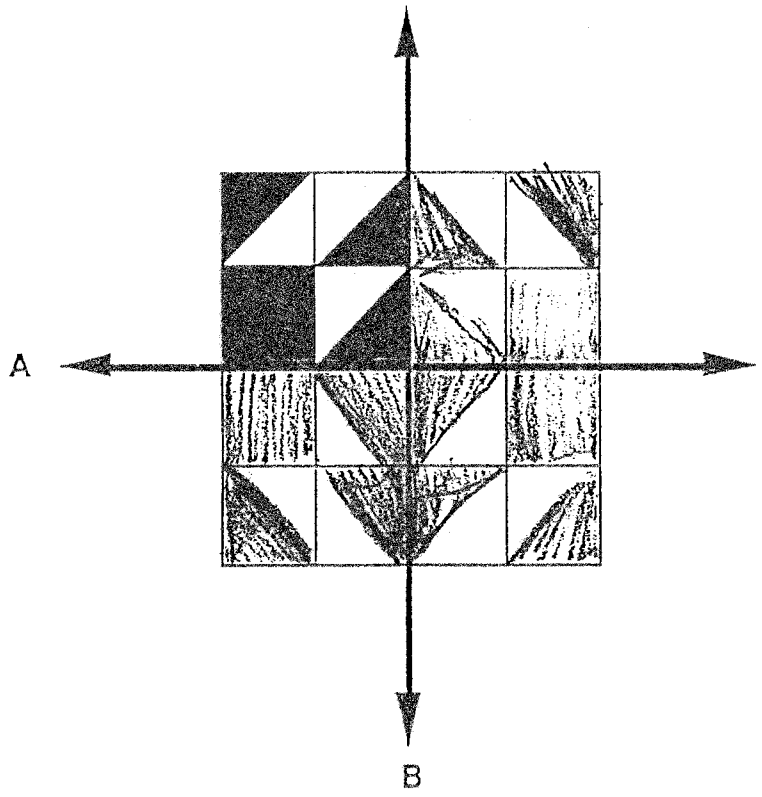
I Don't now. I figurd it out on my.

2 POINTS

CORRECT DRAWING; INCORRECT EXPLANATION

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Keisha started designing the quilt pictured below. She wants the quilt to be symmetrical both horizontally (line A) and vertically (line B). Shade in the squares so that lines A and B are lines of symmetry for the quilt.



Explain how you could prove to Keisha that your quilt shading has symmetry both horizontally and vertically.

you can fold it both horizontal & Verticle and it will matchup

3 POINTS

CORRECT DRAWING; CORRECT EXPLANATION

GRADE 4 - MR. HARDING
SCORING RUBRIC

4 POINTS Correct answer circled; correct explanation of "why" (can show work); correct explanation of "how" (Three parts correct)

* * * *

3 POINTS Two of the three parts correct; the third part incorrect
OR Two of the three parts correct; the third part omitted

* * * *

2 POINTS One part correct; two parts incorrect
OR One part correct; one part incorrect; one part omitted
OR One part correct; two parts omitted

* * * *

1 POINT All three parts incorrect

* * * *

0 POINTS Either one or two parts incorrect; one or two parts omitted

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One Yes No

Explain Why

Exemplar: *Yes. Explanation of "why" may contain or show the work. Students must indicate that 18 x 25¢ plus 25¢ for Mr. Harding is less than $5.00*

OR

Yes. Explanation of "why" must show that $5.00 = 20 quarters and that the total numbers of quarters needed would be 18 students + 1 for Mr. Harding, or 19 quarters.

OR

Yes. Explanation of "why" may contain or show the work. Students must indicate that $5.00 ÷ 19 fares is 26¢.

Explain how you arrived at your answer.

Exemplar: *A quarter is worth $0.25 and he must pay for 19 rides. Multiplying $0.25 by 19 is $4.75 which is less than $5.00. Yes, he has enough money.*

OR

Only 19 people need a ride and Mr. Harding has $5.00 which is the equivalent of 20 quarters. Yes, he has enough money.

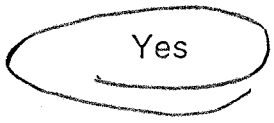
OR

Twenty-six cents is more than 25 cents Yes. He has enough money

There are other possible correct solutions.

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One  Yes No

Explain Why

Explain how you arrived at your answer.

0 POINTS
CORRECT ANSWER CIRCLED AND EXPLANATION OF "WHY" OMITTED;
EXPLANATION OF "HOW" OMITTED

1 PART CORRECT; 2 PARTS OMITTED

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One Yes (No)

Explain Why if you multyplyed 18 $ 25 it would come out to $11.60.

Explain how you arrived at your answer. I multyplyed 18 & 25 together.

1 POINT
INCORRECT ANSWER CIRCLED; INCORRECT EXPLANATION OF "WHY";
INCORRECT EXPLANATION OF "HOW"

ALL 3 PARTS INCORRECT

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One (Yes) No

Explain Why There is 4 Quarters in a Dollor. 4x5 is 20

Explain how you arrived at your answer. I always know about money.

2 POINTS
CORRECT ANSWER CIRCLED; INCORRECT EXPLANATION OF "WHY";
INCORRECT EXPLANATION OF "HOW"

1 PART CORRECT; 2 PARTS INCORRECT

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One Yes (No)

Explain Why He didn't have enogh money because he didn't have $2.30.

Explain how you arrived at your answer. I did the problem in my head.

2 POINTS
INCORRECT ANSWER CIRCLED; INCORRECT EXPLANATION OF "WHY";
CORRECT EXPLANATION OF "HOW"

1 PART CORRECT; 2 PARTS INCORRECT

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One (Yes) No

Explain Why

Because he has $5.00 dollars

Explain how you arrived at your answer.

Cause he had five dollars and Their are 18 children that would be $4.50 plus his self would be $4.75

3 POINTS
CORRECT ANSWER CIRCLED; INCORRECT EXPLANATION OF "WHY";
CORRECT EXPLANATION OF "HOW"

2 PARTS CORRECT; 1 PART INCORRECT

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One (Yes) No

Explain Why

Explain how you arrived at your answer.

Yes He will have 25¢ left I know because with Five dollars ~~20¢~~ you can have 20 people go with 5 dollars.

3 POINTS

CORRECT ANSWER CIRCLED; EXPLANATION OF "WHY" OMITTED;
CORRECT EXPLANATION OF "HOW"

2 PARTS CORRECT; 1 PART OMITTED

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One (Yes) No

Explain Why

Yes because 25 x 18 = 225 and he has 5.00 so he got's enough for everybody even him.

Explain how you arrived at your answer.

$$\begin{array}{r} 4 \\ 25 \\ \times 19 \\ \hline 225 \end{array}$$ and I put that into my promblem

4 POINTS
CORRECT ANSWER CIRCLED WITH CORRECT EXPLANATION OF "WHY";
CORRECT EXPLANATION OF "HOW"

ALL 3 PARTS CORRECT

Directions: Solve the following problem. There may be more than one way to answer correctly. Show as much of your work as possible.

Mr. Harding took his summer camp troop of 18 children to the zoo. They wanted to ride the train back to the main gate. Train rides cost a quarter. Mr. Harding had only $5.00 left. Did he have enough money for all of them (including himself) to ride the train?

Circle One (Yes) No

Explain Why If you had $5.00 and each child was 25¢ You would have 25¢ Left

Explain how you arrived at your answer. By taking 25¢ and making it into dollars

25 50 75 1.00 25 50 75 1.00
25 50 75 1.00 25 50 75 1.00
25 50 75 1.00

4 POINTS
CORRECT ANSWER CIRCLED WITH CORRECT EXPLANATION OF "WHY";
CORRECT EXPLANATION OF "HOW"

ALL 3 PARTS CORRECT